

TRICHOPTERYGIDÆ found in Japan by Mr. G. LEWIS; by the
Rev. A. MATTHEWS, M.A.

The species of *Trichopterygidæ* found by Mr. Lewis in Japan exhibit a curious combination of the European with the tropical type. The former is represented by the common *T. grandicollis* and *T. fuscula*. To judge by the very numerous examples of *T. fuscula* in Mr. Lewis's collection, that species hitherto only known only by a single specimen taken many years ago by myself in Leicestershire, appears to be the most common of all the Japanese *Trichopterygidæ*. The tropical type is exemplified by *T. cursitans*, and especially by *T. Lewisii*, a large and very fine species, which I have named in honour of its captor; this insect seems to be almost as abundant as *T. fuscula*.

Besides those already mentioned *T. Japonica* and *Camptodium adustipenne* are very interesting. It is difficult to determine whether *T. Japonica* is a distinct species, or merely a race of the European *T. variolosa*, in colour and especially in their very remarkable sculpture they are precisely alike, but the Japanese insect is not one-half as large as the European, and in outline almost resembles a *Ptilium*, being long and narrow, while the other is short and broad. Since these differences are persistent through the whole series of eight specimens, I have determined to separate this form from *T. variolosa*, for, even if they should eventually prove to be merely varieties of the same species, the name "*Japonica*" will be demonstrative as well as applicable.

I cannot see how the trinomial system can be objected to in such a case as this; it seems to be the only way to convey an idea of individual peculiarity; to call this insect *T. variolosa* would utterly bewilder any one conversant with the European form, and on the other hand any one acquainted only with the Japanese would never recognise the European examples, for without the aid of a compound power the superficial sculpture can scarcely be seen.

In *Camptodium*, Mr. Lewis has been fortunate enough to recover one of Col. Motschulsky's lost genera. The insect taken by Mr. Lewis agrees entirely with the characters given in his very short and unsatisfactory description, and also with his figure (Bull. Mosc. vol. xli, tab. 8, fig. 4).

It is a curious and interesting species, in form much resembling the *Scydmanidae*, but in all its anatomy a true *Trichopterygian*.

Ptinella Lewisiana, n. sp.

L.c. $\frac{1}{16}$ lin. = 1 mm. Elongata, sat depressa, parum nitida, translucide castanea, pilis griseis parce vestita; capite magno lato, antice valde rotundato, oculis parvis prominulis; pronoto magno, capite latiori haud longiori, ad medium latissimo, leviter sed confertim tuberculato, sive alutaceo, impressione levi ovali in medio disco utrinque notato, lateribus marginatis antice valde rotundatis, postice contractis vix constrictis, margine basali fere rectâ angulis acutis; elytris capite atque pronoto parum longioribus et latioribus, pone media latissimis, ordinibus obliquis remote sat profunde asperatis, lateribus parum rotundatis, apicibus valde rotundatis; abdomine sat obtuso dilutiori segmentis duobus ultimis late flavis; pedibus atque antennis longis robustis late flavis.

Head large and broad, much rounded in front, closely tuberculate, or alutaceous; eyes small, slightly prominent; antennæ long, robust, bright yellow.

Thorax large, broader, but not longer than the head, widest at the middle, lightly but closely tuberculate or alutaceous, with a faint oval depression on each side near the middle of the disc, sides margined, much rounded in front, contracted but scarcely constricted towards the base, basal margin nearly straight, with the angles acute.

Scutellum rather small, triangular, closely asperate.

Elytra rather longer and wider than the head and thorax, widest behind the middle, remotely but rather deeply asperate in oblique transverse rows, sides slightly rounded, apex much rounded.

Abdomen obtuse, pale, with the two apical segments bright yellow.

Legs long and robust, bright yellow.

Underparts castaneous, with the coxæ, mouth, and all the ventral segments, bright yellow.

Differs from *Ptin. Fauveli* in its larger size and broader and less constricted thorax.

A single specimen found near Yokohama.

Obs. This fine insect, the largest of its genus yet discovered, may be a sex of *Ptin. Fauveli*, of which species a single specimen was obtained from Tasmania by M. Fauvel.

Trichopteryx Lewisii, n. sp.

L.c. $\frac{9-11}{16}$ lin. = 1.12–1.37 mm. Latissima convexa postice attenuata, capite atque pronoto nigro-piceis, elytris rufis, pilis longis flavescentibus sat dense vestita; capite magno antice rotundato, oculis modicis sat prominentibus; pronoto permagno latissimo convexo, capite longiori et multum latiori, ad basim latissimo, tuberculis minutis ordinibus densis sinuatis dispositis, interstitiisque sat nitidis confertim ornato, lateribus rotundatis et late marginatis, margine ipsâ rufâ, margine basali profunde sinuatâ angulis latis acutis et longe productis rufis; elytris rufis capite atque pronoto angustioribus, haud longioribus, ad humeros latissimis, maribus valde attenuatis, ordinibus transversis leviter, sed confertissime asperatis, lateribus fere rectis, apicibus latis minime rotundatis; abdomine longius exserto; pedibus longis læte flavis, antennis longis gracillimis obscure flavis.

Head large and broad, rounded in front, ornamented with a few minute remote tubercles; eyes moderate, scarcely prominent; antennæ long and very slender, dusky yellow.

Thorax very large and broad, convex, longer and much wider than the head, widest at the base, ornamented with minute tubercles in close wavy rows, with the interstices rather shining, sides slightly rounded and broadly margined, the margin rufous, basal margin very deeply sinuated, with the angles rufous, broad, acute, and very much produced.

Scutellum large, triangular, closely and finely asperate.

Elytra rufous, rather small, not longer but much narrower than the head and thorax, widest at the shoulders, much attenuated posteriorly in the males, faintly but very closely

asperate in transverse rows, sides nearly straight, apex broad and very little rounded.

Abdomen much exerted, conical, with the apex tridentate.

Legs long, bright yellow.

Underparts castaneous, with the mouth, coxæ, and apex of the venter, paler.

Differs from *T. umbricola* in its larger size, broader and more depressed form, rufous elytra, long pubescence, and general sculpture.

Found, not uncommonly, in many parts of the islands by Mr. Lewis, in honour of whom I have named this very fine and distinct species.

Trichopteryx cursitans, Nietner.

T. cursitans, Trich. Illustr., p. 144.

This species, originally found by Herr. Nietner in Ceylon, was met with by Mr. Lewis in various parts of Japan. It may be distinguished from the other Japanese species by the rufous colour and attenuated form of the elytra; but in some individuals the colour of the elytra is much more obscure than in the specimens taken by H. Nietner.

Trichopteryx grandicollis, Mannerheim.

T. grandicollis, Trich. Illustr., p. 135.

Some specimens taken by Mr. Lewis near Yokohama and Ichiuchi agree entirely with the European *T. grandicollis*.

Trichopteryx fuscula.

T. fuscula, Matthews, Trich. Illustr., p. 175.

L.c. $\frac{5}{16}$ lin. = .63-.75 mm. Oblongo-ovata, parum convexa, fusca haud nitida, pilis griseis dense vestita; capite magno lato sat prominenti, oculis modicis prominulis; pronoto modico, capite vix longiori parum latiori, prope basim latissimo, tuberculis modicis, ordinibus densis dispositis interstitiisque nitidis reticulatis, confertim ornato, lateribus modice rotundatis, marginatis

margine flavescenti, margine basali leviter sinuatâ angulis acutis modice productis; elytris subquadratis, capite atque pronoto vix longioribus aut latioribus, pone media latissimis, confertim asperatis, lateribus leviter rotundatis, apicibus latis minime rotundatis; antennis gracilibus flavis; pedibus longis læte flavis.

Head large and broad, slightly prominent, closely tuberculate; eyes moderate, rather prominent; antennæ slender, pale yellow.

Thorax moderate, rather wider but scarcely longer than the head, widest near the base, ornamented with moderate tubercles in close rows, interstices shining and reticulate, sides moderately rounded and margined, with the margin yellow, basal margin faintly sinuated, with the angles acute, slightly produced.

Scutellum rather large, triangular, elongate, closely asperate.

Elytra subquadrate, scarcely longer or wider than the head and thorax, widest behind the middle, closely asperate, sides faintly rounded, apex broad, scarcely rounded.

Abdomen moderately exserted, rather obtuse.

Legs long, bright yellow.

Underparts castaneous, sometimes testaceous, with the mouth, coxæ, and apex of venter, yellow.

Differs from others in its small size, short ovate form, pale brown colour, long grey pubescence, and in sculpture.

Found by Mr. Lewis in various parts of the Islands. •

Trichopteryx Japonica, n. sp.

L.c. $\frac{5}{16}$ lin. = .63 mm. Sat elongata angusta convexa nitida, obscure castanea pilis flavis sparse vestita; capite permagno lato, oculis modicis prominulis; pronoto modico, capite paulum longiori et latiori, prope medium latissimo, punctis profundis foveolatis sat remotis impresso, interstitiis glabris nitidis, lateribus valde rotundatis et late marginatis, margine basali rectâ angulis acutis sat prominentibus; elytris anguste ovatis rufo-castaneis, capite atque pronoto fere pariter longis et latis, pone media latissimis, punctis profundis remotis impressis, interstitiis glabris nitidis, lateribus modice rotundatis, apicibus latis, minime rotundatis, extremis albidis, pedibus sat longis læte flavis; antennis longis obscure flavis.

Head large and broad, rounded in front, marked with

moderate remote punctures; eyes rather large and prominent; antennæ long, robust, dusky yellow.

Thorax moderate, rather longer and wider than the head, widest near the middle, marked with large, deep, and rather distant foveolate punctures, with the interstices smooth and shining, sides much rounded and broadly margined, basal margin straight, with the angles acute and rather prominent.

Scutellum large, triangular, remotely punctured.

Elytra narrow, rufo-castaneous, about as long and as broad as the head and thorax, widest behind the middle, deeply and rather remotely punctate, with the interstices smooth and shining, sides moderately rounded, apex broad, very little rounded, with the edge white.

Abdomen considerably exposed.

Legs rather long, bright yellow.

Underparts castaneous, with the mouth and coxæ yellow.

Taken in Kiushiu and South Yezo.

Camptodium. Pl. IV.

Camptodium, Motschulsky, Bull. Mosc. vol. xli, p. 170.

Antennæ undecim-articulatæ, duobus basalibus permagnus pariter longis, secundo primo parum crassiori, ampulliformi, sex sequentibus pariter longis, gracilibus ad bases parum constrictis, nono valde incrassato, decimo nono plus quam duplo et longiori et crassiori, e basi usque ad medium orbiculari, dehinc in scapo longo gracillimo abrupte contracto, undecimo decimo pariter longo et lato, ad medium fortiter et abrupte constricto, apicem versus fusiformi.

Caput modicum sat angustum deflexum.

Pronotum angustum, basim versus leviter constrictum.

Scutellum triangulare, sat longum.

Elytra integra magna et turgide inflata.

Alæ longæ lanceolatæ, scapo gracili, neuratiōne, atque setarum prælongarum fimbriâ Trichopterygidis typicis similes.

Prosternum sat magnum, falcatum, *episternis* exiguis, *epimeris*

magnis, receptacula coxarum postice cingentibus, receptaculis coxarum circularibus, prosterno processu divisis.

Mesosternum sat breve, sat late carinatum, *episternis* modicis humeralibus, *epimeris* magnis latis, receptacula coxarum attingentibus, receptaculis coxarum sat magnis circularibus, carinâ divisis.

Metasternum magnum, transversum oblongum, lateri corporis haud attingens; *episternis* permagnis latis, ad coxas extensis; *epimeris* permagnis latis ultra metasternum prolongatis, ad apices valde rotundatis; coxis posterioribus sat parvis, per totas modice laminatis, laminâ triangulari.

Venter segmentis sex compositus, primo magno longo, quatuor sequentibus primo multo brevioribus, inter se paribus, apicali præcedente longiori obtuso.

Pedes longi et graciles, tarsis triarticulatis, articulo secundo primo duplo longiori, tertio longissimo ad medium leviter constricto, unguibus modicis gracilibus.

Obs. I regret to say that, after I had finished the specific description, and sketches of the outline, the whole underside, antennæ, and hind leg of this insect, by an unfortunate accident I lost the head and thorax, which I had removed for dissection, and am therefore unable to describe the organs of the mouth.

Camptodium adustipenne.

Campt. adustipenne, Motschulsky, Bull. Mon. vol. xli, tab. 8 fig. 4.

L.c. $\frac{5-6}{7}$ lin. = .63-.75 mm. Capite atque pronoto angustatis elytris turgide inflatis, castaneum nitidum, pilis perbrevis flavis parcissime indutum; capite sat magno deflexo antice sat elongato, oculis magnis valde prominentibus; pronoto angusto, capite parum longiori et latiori, ante medium latissimo, nitido, foveis, quatuor permagnis profundis fere contingentibus, quarum exteriores duplices existunt, ad basim impresso, lateribus marginatis, basim versus leviter constrictis, margine basali fere rectâ angulis acutis sat prominentibus; elytris rotundatis valde inflatis, capite atque pronoto multum longioribus et latioribus, prope media latissimis, punctis foveolatis profundis remotis impressis, lateribus valde rotundatis, apice obtuso; pedibus atque antennis longis gracillimis læte flavis.

Head rather large, deflexed, rather produced in front; eyes large and very prominent; antennæ long and slender, bright yellow.

Thorax narrow, rather longer and broader than the head, widest before the middle, shining, with four very large, deep, longitudinal foveæ at the base, of which the exterior are double, sides margined and slightly constricted near the base, basal margin nearly straight with the angles acute and rather prominent.

Scutellum large, triangular, rather long, smooth and shining, with an impressed line within the lateral margins.

Elytra rounded, exceedingly convex and inflated, much longer and broader than the head and thorax, widest near the middle, marked with deep and distant foveolate punctures, sides very much rounded, apex obtuse.

Legs long and slender, bright yellow.

Underparts castaneous, with the terminal segments of the venter bright yellow.

Nagasaki; found near the Suwa Temple, April 14th, 1881.

EXPLANATION OF PLATE.

- Fig. 1. *Camptodius adustipenne*.
 „ 2. Ditto (underside).
 „ 3. Antenna.
 „ 4. Hind leg.
 „ 2a. prosternum.
 „ 2b. episternum of prothorax.
 „ 2c. epimeron of ditto
 „ 2d. mesosternum.
 „ 2e. episternum of mesosternum.
 „ 2f. epimeron of ditto.
 „ 2g. metasternum.
 „ 2h. episternum of metasternum.
 „ 2i. epimeron of ditto.

